



Facility renovation funded through energy efficiency

Located in the gateway to Glacier National Park, Flathead County, Montana is host to 85,000 residents and thousands more who come to enjoy the great outdoors. Johnson Controls is working with Flathead County to implement the first county performance contract in the State of Montana under revised performance contracting legislation. This project includes facility improvements that will update county buildings and save more than 25 percent in utility bills.

Performance contracting pays for upgrades

After the state legislature updated its performance contracting legislation to include local government, Johnson Controls immediately went to work with county leaders to develop a plan to improve county buildings – all paid for with money saved from the project. A tax-exempt municipal lease that Johnson Controls helped negotiate will fund improvements and be paid back over 30 years.

The \$3.9 million contract will save the county more than \$161,000 in annual utility and operational costs while avoiding the annual generation of more than two million pounds of carbon dioxide emissions.

Facelift for Flathead facilities

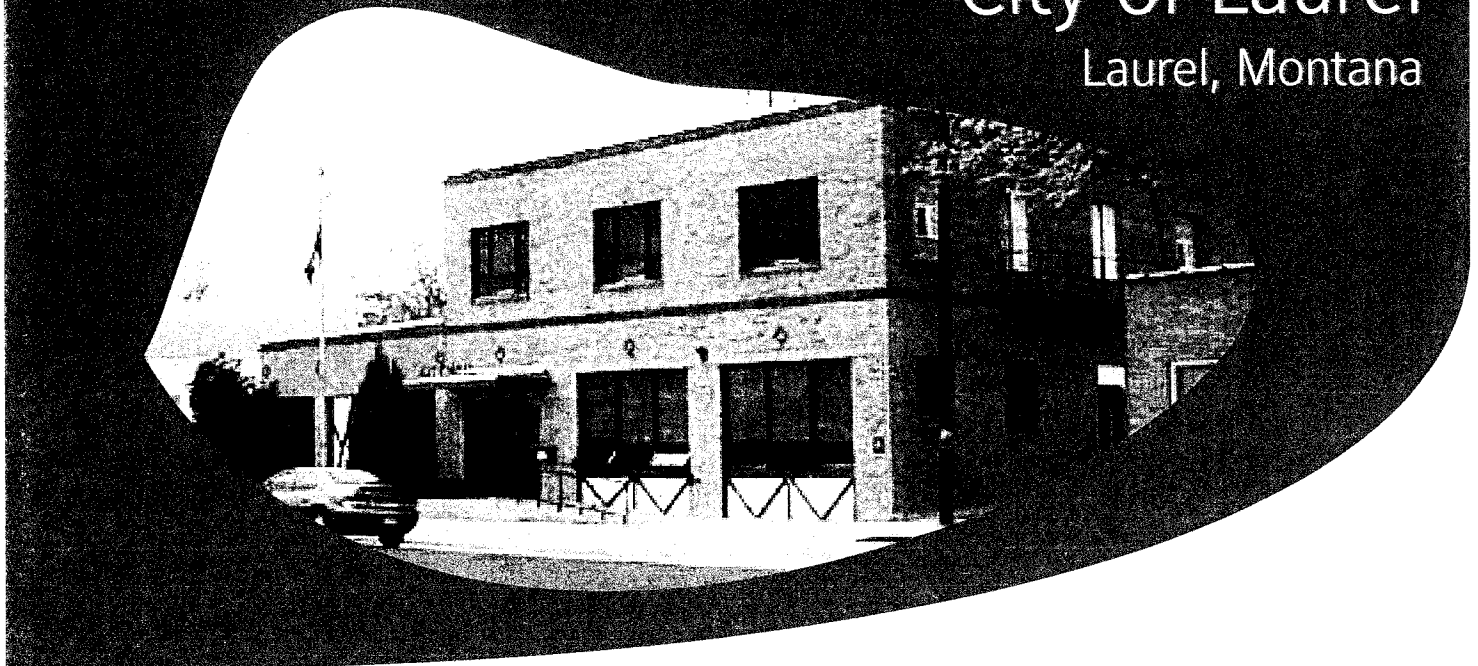
More than a dozen buildings are being renovated as part of the performance contract, including the justice center, juvenile detention center, courthouse, animal shelter, administration buildings, maintenance shops, fleet storage, community center and expo building.

Traditional energy conservation measures, including lighting, boiler and chiller retrofits, are included along with upgrades to vending machines, elevators and IT power management. Additionally, inmate water control systems at the jail and other improvements will lead to greater water efficiency, which is always a concern in the region. A county-wide energy management control system will help facility managers learn where to find additional savings.

Historic county courthouse

Special care is being taken with the century-old Flathead County Courthouse. Johnson Controls is helping arrange for a grant for exterior renovation to the historic courthouse. Windows that are both historically sensitive and energy efficient may be installed in the brick and stone building.

Project profile
City of Laurel
Laurel, Montana



New water meters, better facilities funded through energy and operational improvements

With a population of 7,000, Laurel, Montana, is firmly rooted in the historic and natural beauty of the American west. When city leaders needed to upgrade municipal facilities and improve the accuracy of water meters, Johnson Controls proposed an innovative project that pays for both from savings that will accrue. It is expected that the \$1.7 million contract will save the city more than \$97,000 in annual utility and operational expenses.

Water meter reading made easy

Many of Laurel's 2,353 residential and business water meters dated back to the 1970s. Johnson Controls oversaw installation of new meters fitted with radio transmitters that send a signal carrying precise information about water usage. The meters are monitored from vehicles that pass by on the street. Work is performed much faster than with individual service people going home-to-home, plus human reading errors are eliminated.

In addition, the automatic devices catch anomalies far in advance of billing. That means the city is able to quickly

identify and repair water leaks at homes or businesses. The result: less water lost and fewer billing surprises. Also, the water usage is reported in gallons rather than hundred cubic feet, which eliminates lost revenue from incomplete or rounded-off consumption values. Through frequent reports, Johnson Controls can help the city analyze water usage and plan for the future.

Making city buildings more efficient

Johnson Controls also is providing energy upgrades for 12 city buildings. Through highly efficient lights, lighting controls, programmable thermostats, an energy management control system, improved insulation and a new boiler for city hall, the city will save energy, reduce its impact on the environment and provide more comfortable working conditions for city employees.

Johnson Controls worked with city leaders and financing firms to negotiate a tax-exempt municipal lease to fund the projects. It is one of the first performance contracts under the state of Montana's new legislation. Annual savings will be determined during the first year, but early reports indicate significant reductions.

Ravalli County Bitterroot Valley, Montana



Better buildings and better stewardship of tax dollars

Nestled in the beautifully scenic Bitterroot Valley of southwestern Montana, Ravalli County is home to more than 40,000, and one of the fastest growing counties in the state. The constant influx of new residents and tourists has put additional strain on public facilities that already were overtaxed. Faced with rising costs to maintain aging heating, air conditioning and other equipment in a number of county buildings, Ravalli County commissioners decided to take a longer view of the problem and find an answer that coupled increased energy efficiency with lower cost of ownership. The county turned to Johnson Controls for a solution that improved public facilities, reduced energy usage and made the best use of taxpayer dollars.

Improvements that pay for themselves

In roughly eight months, Johnson Controls made more than \$2 million in upgrades to lighting, heating, air conditioning and facility management systems in five Ravalli County buildings: the Justice Center, Jail and Detention Center, Administration Building, Youth Court and the historic County Museum.

The entire project was funded through a performance contract that pays for the equipment upgrades with more

than \$100,000 in annual savings on energy bills and from improvements in the efficiency of county operations.

In addition to cost savings, the new highly efficient and environmentally friendly lighting, heating and cooling systems will cut emissions of carbon dioxide and other harmful substances by nearly 2 million lbs. per year. That's the equivalent of planting more than 1,700 acres of trees or removing the emissions of 260 cars from Ravalli County roads.

A very cool solution

Reflective of their hands-on, proactive approach to the project, Ravalli County commissioners were particularly concerned about a problem that had become a "hot topic" in the Administration Building. The air conditioning systems in the building lacked sufficient capacity to keep the building cool on hot summer days. The result: an unpleasant environment for the county staffers who worked in the building and the citizens who used it.

Thanks to upgrades to the air conditioning systems, the building will be noticeably cooler during hot weather and, as a result, employees will be happier and more productive.

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Project profile

Granite County

Granite County, Montana



Facing a growing problem

Perched a mile high in the Rocky Mountains of southwestern Montana, Granite County was home to a booming silver mining industry in the late 1800's. Today, historic ghost towns, rugged mountain landscapes and year-round outdoor activities bring thousands of visitors to an area once voted one of the prettiest painted places in America.

The county's scenic beauty has also drawn a steady stream of new residents, particularly retirees attracted by the area's relatively reasonable property rates. But continual growth posed a serious problem for Granite County commissioners: a hospital and nursing home that were barely keeping up with the health care needs of the expanding population.

Savings pay for efficiency improvements

With an aging boiler supplying heat to the Granite County Medical Center and no backup in case of an equipment failure, forward-thinking members of the Granite County Medical Center Advisory Board knew they would have to make improvements or perhaps face closing the hospital and nursing home under pressure from the State of Montana.

Johnson Controls devised a solution for Granite County that not only resolved the heating problems, but also upgraded lighting, air conditioning and facility management systems in the Medical Center and the nearby Drummond Health Clinic.

The roughly half-million-dollar project was funded through a performance contract, enabling Granite County to pay for the new equipment with more than \$22,000 in annual savings from lower utility bills and more efficient operations.

A sunny solution

Demonstrating the "can do" attitude with which they approached the entire project, the Granite County Medical Center Advisory Board also focused on solving one particular problem at the Medical Center: in the summer months, abundant sunshine caused offices and waiting rooms on the sunny side of the building to become uncomfortably warm.

Johnson Controls installed low E window film on the west side of the building to block the warming rays of the late afternoon summer sun. The result: a cooler facility that keeps staff, patients, residents and visitors much more comfortable.

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